



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|------------------------|--------------------------|------------------|
| 10/074,827 | 02/12/2002 | Edward C. McKinney JR. | SHPR-01041USQ SRM/SDS | 8062 |
| 23910 | 7590 | 07/05/2005 | EXAMINER | |
| FLIESLER MEYER, LLP FOUR EMBARCADERO CENTER SUITE 400 SAN FRANCISCO, CA 94111 | | | TRAN, THAO T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1711 | |

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/074,827

Applicant(s)

MCKINNEY ET AL.

Examiner

Thao T. Tran

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.
2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-22,30-35 and 37-49 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,4-22,30-35 and 37-49 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/11/05.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Reply

1. This is in response to the Reply filed 4/11/2005.
2. Claims 1, 4-22, 30-35, 37-49 are currently pending in this application. No claims have been amended, canceled, or added.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 4-22, 30-35, and 37-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US Pat. 4,789,801).

In regards to claims 1, 4-5, 8-10, 14-17, 20-21, 30-35, 37-49, Lee teaches all the second electrodes being at equal distance from the first array (see Fig. 4-6). Although Lee does not teach the inner second electrodes being positioned at a greater distance downstream from the first array than the outermost second electrodes, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the distance of the second electrodes to the first would have been an art-recognized variable determined by routine experimentation. Moreover, it has been within the skill in the art that slight changes in the position of the electrodes have been held unpatentable over prior art. See MPEP 2144.04 IVA, VIC, 2144.05 IIA, IIB.

Lee teaches an air conditioner (loud speaker), comprising a housing; a voltage generator; a first array of electrodes 74; a second array of electrodes 72 located downstream and in staggered relation to the first array; wherein the second electrodes are evenly spaced apart from each other (see Figs. 4-6; col. 6, ln. 43-56). The first electrodes are ion emitters and curved wires; the second electrodes are ion collectors and curved rods.

Lee further teaches the second electrodes to be of equal size (see Fig. 3-6) and that the second electrodes include a nose that is closer to the first electrodes; wherein the substantially flat surface of each second electrode extends downstream from the first array (see Fig. 3).

In regards to claims 6-7, 11-12, 18-19, 22, Lee further teaches an array of electrodes interposed between the second electrodes (see Fig. 3). Lee does not teach the additional electrodes to be upstream of the first electrodes or downstream of the second electrodes.

However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the position of these additional electrodes would have been an obvious matter of design choice, since Applicants have not disclosed the advantages of a particular position of the additional electrodes over other positions. Moreover, it has been within the skill in the art that rearrangement of parts would not impart patentability over the prior art. See MPEP 2144.04 VIC, 2144.05 IIA, IIB.

In regards to claim 13, Lee does not specify the distance between the second electrodes from the outlet. However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, that the distance of the second electrodes to the outlet would have been an art-recognized variable determined by routine experimentation. Moreover, it has been

Art Unit: 1711

within the skill in the art that rearrangement of parts would not impart patentability over the prior art. See MPEP 2144.04 IVA, VIC, 2144.05 IIA, IIB.

Response to Arguments

5. Applicant's arguments filed 4/11/2005 have been fully considered but they are not persuasive.

In response to Applicants' request, the examiner has cited the MPEP sections in paragraph 4 above to support the rejection over the prior art. Applicants further argue that the examiner's conclusion of obviousness is improper since the reference of Lee does not provide any suggestion as to changing the position of the second electrodes downstream from the first ones. It is hereby noted that a slight rearrangement of parts would not impart patentability over the prior art. Moreover, as illustrated in Lee, the position of the second electrodes with respect to the first electrodes varies, whether straight head-to-tail downstream as in Fig. 3, or curve and side-to-side as Fig. 4. In Fig. 6, the distance between each second electrode to its' corresponding first electrode is not always constant. The various arrangements of the electrodes with respect to each other provide evidence that the position of electrodes can be modified.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

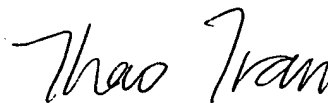
Art Unit: 1711

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 8:30 a.m. - 5:00 p.m..

. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



tt
June 24, 2005

THAO T. TRAN
PATENT EXAMINER